

SEQ ID NO:11 has been amended to include three nucleotides that were inadvertently omitted. These are "TGA" at the 3' end. SEQ ID NO:12 has been amended to include the 3' "TGA" that were inadvertently omitted. SEQ ID NO:81 has been amended to contain a peptide sequence, which was inadvertently originally described as "intentionally skipped". SEQ ID NOS:240, 241 and 242 have been replaced.

SEQ ID NOS:42, 43, 44, 45, 46, 47, 48, 50, 52, 56, 58, 60, 61, 69, 70, 71, 74, 102, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 225, 226, 227 and 228 have been amended to appropriately describe miscellaneous features of the sequences, in accordance with 37 C.F. R. §1.822(b).

SEQ ID NOS:104 and 133, which were originally described as "intentionally skipped", have been amended to contain "000" in place of the sequence, in accordance with 37 C.F. R. §1.821(c).

Pursuant to 37 C.F.R. §1.825(b), a substitute computer readable form of the sequence listing has also been included. Also in accordance with 37 C.F.R. §1.825(b), it is hereby stated that the copy in computer readable form is the same as the substitute sequence listing.

IN THE FIGURES:

NE In the title to Figure 20a, please delete "(SEQ ID NO:137)" and add in its place --(SEQ ID NO:141)--.

IN THE CLAIMS:

Please cancel claims 1 and 21-23 without prejudice or disclaimer, and add new claims 33-60, as indicated herein.

32
33. (New) Isolated or purified antibodies which are capable of reacting with a persephin polypeptide with about 80% or greater identity to SEQ ID NO:185, SEQ ID NO:187, SEQ ID NO:196, SEQ ID NO:198, SEQ ID NO:217 or SEQ ID NO:221.

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34. (New) The antibodies of claim 33, wherein the antibodies are polyclonal.

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35. (New) The antibodies of claim 33, wherein the antibodies are monoclonal.

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36. (New) A method of preparing the antibodies of claim 33 comprising immunizing an animal with a polypeptide comprising at least a portion of the persephin polypeptide.

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37. (New) The method of claim 36, wherein the polypeptide comprises an oligopeptide that is a part of the persephin polypeptide.

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38. (New) The method of claim 37, wherein the oligopeptide is hydrophilic.

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39. (New) The method of claim 37, wherein the oligopeptide amino acid sequence is conserved within the GDNF/neurturin/persephin family.

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40. (New) The method of claim 39, wherein the oligonucleotide comprises an amino acid sequence that is selected from the group consisting of SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:108, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128 and SEQ ID NO:129.

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41. (New) A method for detecting the presence of a persephin in a sample comprising combining the antibodies of claim 33 with the sample and determining whether the antibodies react with a persephin.

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42. (New) The method of claim 41, wherein the sample is obtained from a patient.

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43. (New) The method of claim 42, wherein the patient is a human being.

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44. (New) The method of claim 43, wherein the sample is selected from the group consisting of a blood sample and a tissue biopsy.

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45. (New) The method of claim 41, wherein the sample is obtained from an *in vitro* culture of cells.

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46. (New) The method of claim 41, wherein the determination step comprises an assay selected from the group consisting of immunodiffusion, immunoelectrophoresis, immunochemical methods, binder-ligand assays, immunohistochemical techniques, agglutination and complement assays.

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47. (New) The method of claim 46, further comprising antibodies coupled to a label selected from the group consisting of radionuclides, enzymes, fluorescers, chemilumescers, enzyme substrates or co-factors, enzyme inhibitors, particles and dyes.

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~~48.~~ (New) The method of claim 47, wherein the assay is a radioimmunoassay or an enzyme immunoassay.

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~~49.~~ (New) The method of claim 48, wherein the assay is an enzyme-linked immunoassay or a fluorescent immunoassay.

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~~50.~~ (New) The method of claim 41, wherein the persephin comprises an amino acid sequence of about 80% or greater identity to SEQ ID NO:187, SEQ ID NO:198 or SEQ ID NO:221.

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~~51.~~ (New) The method of claim 50, wherein the persephin is SEQ ID NO:187, SEQ ID NO:198 or SEQ ID NO:221.

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~~52.~~ (New) A method for detecting the presence of a non-persephin GDNF family member in a sample comprising combining the isolated or purified antibodies of claim 39 with the sample and determining whether the antibodies react with a non-persephin GDNF family member.

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~~52~~
~~53.~~ (New) The method of claim 52, wherein the sample is obtained from a patient.

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~~54.~~ (New) The method of claim 53, wherein the patient is a human being.

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~~55.~~ (New) The method of claim 54, wherein the sample is selected from the group consisting of a blood sample and a tissue biopsy.

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~~56.~~ (New) The method of claim 52, wherein the sample is obtained from an *in vitro* culture of cells.

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~~57.~~ (New) The method of claim 52, wherein the determination step comprises an assay selected from the group consisting of immunodiffusion, immunoelectrophoresis, immunochemical methods, binder-ligand assays, immunohistochemical techniques, agglutination and complement assays.

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~~58.~~ (New) The method of claim 57, wherein the determination step further comprises antibodies coupled to a label selected from the group consisting of radionuclides, enzymes, fluorescers, chemilumescers, enzyme substrates or co-factors, enzyme inhibitors, particles and dyes.